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(54) CHEMICAL TREATMENT PROCESS FOR TIMBER

(57) Abstract:

PURPOSE: To provide flame retardance and enhance dimension stability, hardness and prevention of cracks by impregnating a timber with water-soluble radical polymerized compound water solution essentially containing water-soluble radical polymerized organic acid metal salt and polymerizing the same under the state of water retention.

CONSTITUTION: A timber is impregnated with water solution composed of radical polymerized organic acid metal salt water solution in which another water solution radical polymerized compound is mixed, and then heated and polymerized in the state that the water content is scattered over as little as possible. A high molecular compound is modified in the timber by said process and also filled into the spaces of the timber to have water-insoluble organic acid metal polymer contained in the timber and provides flame retardance for the timber. Further, performances such as flame retardance and the like are retained for a long time by being impregnated with water solution inorganic acid salt group.

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MC - A04-A03 A04-B09 A04-F04 A11-B05C A12-B09 C04-A07D3 C04-C03B C05-A01B C05-A03A C12-M06 D09-A01B F05-B F05-B01
M1 - [01] H401 H481 H589 H714 H721 J011 J012 J013 J271 J272 J273 M210 M212 M213 M232 M262 M281 M282 M283 M312 M313 M315 M320 M321 M323 M332 M333 M342 M343 M383 M391 M393 M423 M431 M510 M520 M530 M540 M630 M781 M903 P002 P241 P341 Q261 Q324 Q620 Q621 V742 V743; 1704-X 1724-X 1711-X 1714-X 8929-0
PA - (DKEN) DAIKEN KOGYO KK
PN - JP1196302 A 19890808 DW198937 004pp
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PR - JP19880022205 19880201
XA - C1989-119027
XIC - B27K-003/15 ; B27K-005/00
XP - N1989-204690
AB - J01196302 Method comprises impregnating woody material with an aq. soln. of (A) water-sol. and radically polymerisable cpds. contg. (B) water-sol. and radically polymerisable metal salts of organic acids and polymerising under water-retaining conditions. The impregnated woody material is pref. further impregnated with water-sol. salts of inorganic acids. (B) is pref. e.g. acrylate of Zn, Ba, Ca, Mg or Al. (A) is pref. e.g. glycerin di(meth)acrylate, trimethlolpropane di(meth)acrylate, trimethylolpropane triacrylate, polyethylene glycol mono(meth)acrylate or polyethyleneglycol di(meth)acrylate).
- ADVANTAGE - The chemical treated woody material has good durability, flame resistance, hardness, dimensional stability, rot resistance, and insect resistance.(0/0)
DRL - 1704-X 1711-X 1714-X 1724-X 8929-0
IW - CHEMICAL TREAT WOOD IMPREGNATE WATER SOL RADICAL POLYMERISE COMPOUND CONTAIN ORGANIC METAL SALT POLYMERISE
IKW - CHEMICAL TREAT WOOD IMPREGNATE WATER SOL RADICAL POLYMERISE COMPOUND CONTAIN ORGANIC METAL SALT POLYMERISE
NC - 001
OPD - 1988-02-01
ORD - 1989-08-08
PAW - (DKEN) DAIKEN KOGYO KK
TI - Chemical treatment of wood - by impregnating with water-sol. and

radically polymerisable cpds. contg. organic metal salts and polymerising